UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/713,453	11/14/2003	Patrick L. Von Behren	2003P05219US	9643

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EXAMINER
LAMPRECHT, JOEL

ART UNIT	PAPER NUMBER
3737	

MAIL DATE	DELIVERY MODE
11/28/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

PTOL-90A (Rev. 04/07)

	Application No.	Applicant(s)
Advisory Action **Before the Filing of an Appeal Brief**	10/713,453	VON BEHREN ET AL.
	Examiner	**Art Unit**	
	Joel M. Lamprecht	3737	

--*The MAILING DATE of this communication appears on the cover sheet with the correspondence address --*

THE REPLY FILED <u>28 September 2007</u> FAILS TO PLACE THIS APPLICATION IN CONDITION FOR ALLOWANCE.

1. ☒ The reply was filed after a final rejection, but prior to or on the same day as filing a Notice of Appeal. To avoid abandonment of this application, applicant must timely file one of the following replies: (1) an amendment, affidavit, or other evidence, which places the application in condition for allowance; (2) a Notice of Appeal (with appeal fee) in compliance with 37 CFR 41.31; or (3) a Request for Continued Examination (RCE) in compliance with 37 CFR 1.114. The reply must be filed within one of the following time periods:

   a) ☒ The period for reply expires <u>3</u> months from the mailing date of the final rejection.

   b) ☐ The period for reply expires on: (1) the mailing date of this Advisory Action, or (2) the date set forth in the final rejection, whichever is later. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of the final rejection.

     Examiner Note: If box 1 is checked, check either box (a) or (b). ONLY CHECK BOX (b) WHEN THE FIRST REPLY WAS FILED WITHIN TWO MONTHS OF THE FINAL REJECTION. See MPEP 706.07(f).

Extensions of time may be obtained under 37 CFR 1.136(a). The date on which the petition under 37 CFR 1.136(a) and the appropriate extension fee have been filed is the date for purposes of determining the period of extension and the corresponding amount of the fee. The appropriate extension fee under 37 CFR 1.17(a) is calculated from: (1) the expiration date of the shortened statutory period for reply originally set in the final Office action; or (2) as set forth in (b) above, if checked. Any reply received by the Office later than three months after the mailing date of the final rejection, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

<u>NOTICE OF APPEAL</u>

2. ☐ The Notice of Appeal was filed on _____. A brief in compliance with 37 CFR 41.37 must be filed within two months of the date of filing the Notice of Appeal (37 CFR 41.37(a)), or any extension thereof (37 CFR 41.37(e)), to avoid dismissal of the appeal. Since a Notice of Appeal has been filed, any reply must be filed within the time period set forth in 37 CFR 41.37(a).

<u>AMENDMENTS</u>

3. ☐ The proposed amendment(s) filed after a final rejection, but prior to the date of filing a brief, will <u>not</u> be entered because

   (a)☐ They raise new issues that would require further consideration and/or search (see NOTE below);

   (b)☐ They raise the issue of new matter (see NOTE below);

   (c)☐ They are not deemed to place the application in better form for appeal by materially reducing or simplifying the issues for appeal; and/or

   (d)☐ They present additional claims without canceling a corresponding number of finally rejected claims.

     NOTE: _____. (See 37 CFR 1.116 and 41.33(a)).

4. ☐ The amendments are not in compliance with 37 CFR 1.121. See attached Notice of Non-Compliant Amendment (PTOL-324).

5. ☐ Applicant's reply has overcome the following rejection(s): _____.

6. ☐ Newly proposed or amended claim(s) _____ would be allowable if submitted in a separate, timely filed amendment canceling the non-allowable claim(s).

7. ☐ For purposes of appeal, the proposed amendment(s): a) ☐ will not be entered, or b) ☐ will be entered and an explanation of how the new or amended claims would be rejected is provided below or appended.

   The status of the claim(s) is (or will be) as follows:

   Claim(s) allowed: _____.

   Claim(s) objected to: _____.

   Claim(s) rejected: _____.

   Claim(s) withdrawn from consideration: _____.

<u>AFFIDAVIT OR OTHER EVIDENCE</u>

8. ☐ The affidavit or other evidence filed after a final action, but before or on the date of filing a Notice of Appeal will <u>not</u> be entered because applicant failed to provide a showing of good and sufficient reasons why the affidavit or other evidence is necessary and was not earlier presented. See 37 CFR 1.116(e).

9. ☐ The affidavit or other evidence filed after the date of filing a Notice of Appeal, but prior to the date of filing a brief, will <u>not</u> be entered because the affidavit or other evidence failed to overcome <u>all</u> rejections under appeal and/or appellant fails to provide a showing a good and sufficient reasons why it is necessary and was not earlier presented. See 37 CFR 41.33(d)(1).

10. ☐ The affidavit or other evidence is entered. An explanation of the status of the claims after entry is below or attached.

<u>REQUEST FOR RECONSIDERATION/OTHER</u>

11. ☒ The request for reconsideration has been considered but does NOT place the application in condition for allowance because: <u>See Continuation Sheet.</u>

12. ☐ Note the attached Information Disclosure Statement(s). (PTO/SB/08) Paper No(s). _____.

13. ☐ Other: _____.

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Continuation of 11. does NOT place the application in condition for allowance because: Applicant's arguments with respect to the claims place a more narrow constraint on the claims than is worded therein. For example, a cyclically varrying imaging parameter does not necessarily have to be cyclical over every sample, phase identification can include identifying what part of the heart cycle is being analyzed or the overall phase of the heart cycle, the R wave and Q wave are different "phases" within the heart cycle's perfusion and reperfusion. Perfusion and Reperfusion varry over the course of a heart cycle, and would thereby qualify as a cyclically varying imaging parameter. Cyclical variation does not infer continuity in start/end points of a cycle, rather it begets a consistency over the cycle itself. Therefore a "U" or "V" shaped curve as a fuction of a heart cycle would varry per cycle (see cyclically) Cyclical variation is therefore not "remove", but analyzed over consistent "phases" or waves within the heart cycle (see Q and R waves) Imaging at particular times during an ECG cycle syncs a sinusoid waveform (ECG) with ultrasound acquisition data. Acquisition of "mean pixel values" over time for a given phase of the heart cycle includes taking phase data from single pixels and averaging those single pixels to yield an average. Fourier transform data are extremely well-known in all walks of image processing, and the use of a fourier transform to shift data into the frequency domain isolates phase angle data, phase shift data, and a fundamental frequency (the lowest frequency or first harmonic of a signal). It would be impossible to understand the use of ultrasound imaging without at least an advanced knowledge of fundamental frequnency and harmonic waveforms as they are the baseline principles from which ultrasound metholodigies are taken. Time-domain filtering is actually more bulky and operator intensive than frequency domain filtering, where complicated operators are reduced into simple mathematical expressions (IE: multiplication into addition, compression, and the significant reduction of processing computation for noise removal that exists within the frequency domain).

A vast majority of the arguments laid out in Applicant's arguments have already been addressed, but Examiner has provided as much supplementary information to Applicant with regard to the status of the finally rejected claims and interpretations of the scope defined by said claims.